

### FEATURES

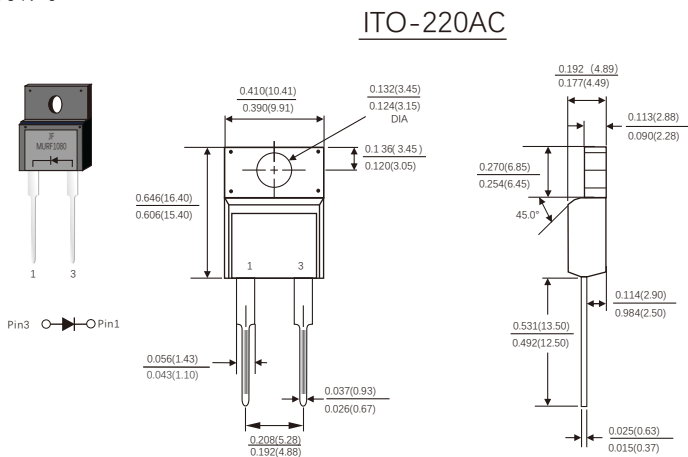
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds,
- 0.25"(6.35mm)from case  
Component in accordance to RoHS 2015/863/EU

### MECHANICAL DATA

- Case: JEDEC ITO-220AC molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked.
- Mounting Position: Any

### TYPICAL APPLICATIONS

- For use in boost stage in SMPS
- High frequency inverters for solar inverters
- DC/DC converters
- High frequency output rectification of battery chargers
- Free wheeling diodes in motor drivers



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameters	Symbols	Value	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	800	Volts
Maximum RMS voltage	$V_{RMS}$	560	Volts
Maximum DC blocking voltage	$V_{DC}$	800	Volts
Maximum average forward rectified current(see Fig.1)	$I(AV)$	10.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150	Amps
Maximum instantaneous forward voltage at 10A (Note 1)	$V_F$	2.20	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_a = 25^{\circ}C$	5	$\mu A$
	$T_a = 125^{\circ}C$	50	
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	45	ns
Typical thermal resistance (Note 3)	$R_{\theta JC}$	3.0	$^{\circ}C/W$
Operating junction temperature range	$T_J$	-55 to+175	$^{\circ}C$
Storage temperature range	$T_{STG}$	-55 to+175	$^{\circ}C$

Notes: 1. Pulse test: 300 $\mu s$  pulse width,1% duty cycle

2. Reverse recovery test conditions  $I_F=0.5A,I_R=1.0A,I_{rr}=0.5A$

3. Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

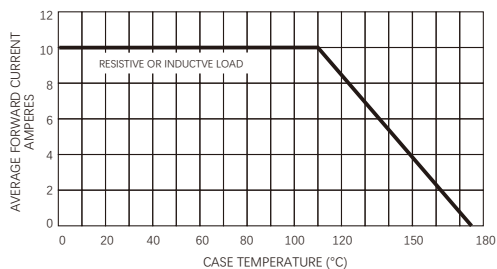


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

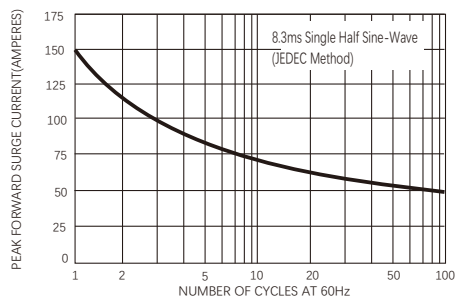


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

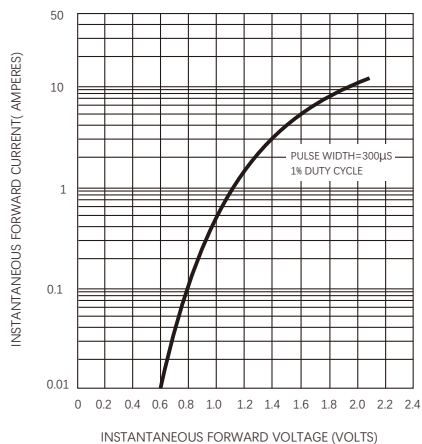


FIG.4-TYPICAL REVERSE CHARACTERISTICS

